

NEW SPIDERS FROM CANADA AND THE ADJOINING STATES, No. 2.

BY J. H. EMERTON, BOSTON, MASS.

The first paper of this series was published in August, 1917, and described a number of spiders from the Pacific coast, eastern Canada and northern New York and New England, part of them collected in the summer of 1916. The present paper describes a few new species collected and identified from the same parts of the country since 1916. In addition to the new species, the male of *Pardosa vancouveri*, described in the paper of 1917, has been found, and its palpus is now figured. *Diplostyla canadensis* Emerton, described in Trans. Conn. Acad., 1882, from Montreal, has been again found, at Lake Tear on Mt. Marcy in the Adirondacks, N.Y., at an elevation of 4,500 feet.

Lophocarenum minakianum, n. sp.

Hardly 2 mm. long. Light brown with the legs and palpi and underside of the abdomen pale. The whole upper half of the abdomen is thickened and covered with small depressions in which are minute hairs. The head of the male has a hump which carries the posterior middle eyes. It is about as high as wide, and rises abruptly before and behind. It is rounded on top and has a slight groove in the middle, but is not as deeply divided as in *L. sculptum* Em., (Can. Ent., Aug., 1917.) which this species closely resembles. At each side of the hump is a deep groove as in *sculptum* and *excavatum*. The male palpus is much like that of *sculptum*, but the process on the top of the tarsus is longer and more narrowly pointed. (Pl. 7, Fig. 1, a and b.)

Minaki, Ontario. Sifted from leaf mould near Minaki Inn.

Ceratinopsis obscurus, n. sp.

Male 2 mm. long. Legs and cephalothorax yellow brown and the abdomen dark grey. The cephalothorax is nearly as wide as long and narrowed in front. The male palpi resemble those of *C. nigripalpis*, but the outer process of the tibia is wide and flat. The tarsus has, as in *nigripalpis*, a wide, thick ridge on the outer edge, at the side of which is a narrower groove. The palpal organ resembles that of *nigripalpis* and *nigriceps*. (Pl. 7, Fig. 2, a, b.)

In leaf mould in pine and birch woods at Minaki, Ontario.

Grammonata semipallida, n. sp.

Scarcely 2 mm. long. Legs pale, cephalothorax but little narrowed in front, pale on the hinder half and darker gray in front. The palpi are also dark grey. The abdomen is gray, pale in front and marked behind with alternate dark and light transverse spots. (Pl. 7, Fig. 3, a.) The male palpi are large and the tarsus round. The tibia has a short, blunt process extending over the tarsus, which has a distinct groove in which the process fits. The tarsal hook is curved in a half circle. The tube of the palpal organ is slender and abruptly curved backward in the middle. (Pl. 7, Figs. 3, b, c, d.)

Winnipeg, Manitoba, June, 1917. F. W. Waugh.

Diplostyla crosbyi, n. sp.

Male 4 mm. long. First femur 3 mm. Height of head and mandibles nearly equal to length of cephalothorax. (Pl. 7, Fig. 4, a.) The cephalothorax and legs are brown and the abdomen gray with light markings in pairs, as in *nigrina*. The tarsus of the male palpus is but little longer than wide. The tarsal hook has a sharp angle near the end and the terminal part is thin and flat and curved,

as if to fit against the convex side of the palpal organ. Near the base of the tarsal hook are several long hairs. The basal process of the palpal organ is not as straight as in *nigrina*, but is turned a little inward, as in *inornata*, (Pl. 7, Fig. 4, b, c) and the narrow terminal half is flattened and slightly grooved in the middle.

Sifted from moss at 3,500 feet near the mouth of Uphill Brook, near Mt. Marcy, in the Adirondacks, N.Y. One male only.

Dictyna quadrispinosa, n. sp.

Male 2 mm. long. Colours and markings like *muraria*. The male palpi have the tibia wider than long. The usual two spines are sessile at the front edge of the tibia on the outer side, they are close together and curved down from the base and upward at the points. Behind the two spines is a ridge somewhat longer than the spines, ending in blunt points above and below. (Pl. 7, Fig. 5, a, b.) The palpal organ is smaller than in *muraria*, and the tube and its supports more slender. (Pl. 7, Fig. 5, c.)

Black Brook, Clinton Co., N.Y., June, 1916. C. R. Crosby.

Pardosa vancouveri Emerton, Can. Ent., Aug, 1917.

The original description was of the female only, the male has since been found and resembles the female in size, colour and markings, with slightly longer legs and smaller abdomen. The male palpus (Pl. 7 Fig. 6) has the basal process very long and flattened and curved obliquely across the palpal organ. The whole palpus is very dark coloured and the details hard to see.

Near Lytton, B.C., from W. Taylor, Vancouver.

Amaurobius agelenoides, n. sp.

Female 9 mm. long. Male a little shorter and more slender. Colours pale yellow and brown in a distinct pattern on the back. The cephalothorax is brown with pale lateral stripes and a pale middle stripe half as wide as the head extending from the eyes to the dorsal groove. (Pl. 7, Fig. 1 a) The legs are pale with fine, dark hairs. The abdomen has a pale middle stripe divided in two in the front half and broken by several indistinct, dark middle spots behind. The rest of the abdomen is brown above and below without any other distinct markings. The upper spinnerets are twice as long as the lower pair, with the terminal joint conical and as wide as long. The cribellum is two-thirds as wide as the lower spinnerets and distinctly divided across the middle. The calamistrum is three-fourths as long as the fourth metatarsus, but does not show at all in the male, which also has the cribellum narrower and less easily seen than in the female. The epigynum is more open than in *sylvestris* and *pictus*, the middle lobe wide and dark coloured. (Pl. 7, Fig. 2 b.) The male palpus has two processes on the outer side of the tibia, which show best when seen from below. (Pl. 7, Figs. c, d.) The tarsus is twice as long as wide, widest near the base, and nearly straight on the inner side. (Pl. 7, Fig. d.)

Immature individuals have long been known, but only in the summer of 1918 were adults secured, the male by C. G. Hewitt at Jasper, and the female by N. B. Sanson at Banff.

Clubiona furcata, n. sp.

Male 4 mm. long. Pale with the abdomen reddish in alcohol. The size, eye arrangement, and length of legs resemble *C. abboti*. The male palpus has the tibia short with the long, outer process curved downward and outward with

a short fork at the end. (Pl. 7, Figs. 7, a.) The palpal organ, (Pl. 7, Figs. 7, b), is long and somewhat like that of *C. canadensis*.

Saskatoon, T. N. Willing.

Clubiona saltitans, n. sp.

Male 3 mm. long. Female 3.5 mm. Cephalothorax 1.5 mm. Colour pale, less red in alcohol than *C. abboti*. Eyes of the upper row in line with the front row and covering the whole width of the head. (Figs. 14, d.) Length of mandibles equal to width of head and slightly longer than in *abboti*. The male palpus resembles that of *abboti*, but is more slender and the outer process of the tibia has the lower branch one-half longer than the upper. (Figs. 14, a, b.)

It has been found at several places near the seashore under stones and sticks on the sand. It sometimes jumps when pursued.

This species has been confused with *C. abboti*. In general it is slightly larger, paler and more slender, and the tarsus of the male palpus is distinctly smaller. The mandibles are slightly longer, but the arrangement of the teeth is the same in both species. (Figs. 14, c.)

Ipswich, Plum Island and Wellfleet, Massachusetts.

Xysticus acquiescens, n. sp.

Male 5.5 mm. long. Legs very short, the first and second pairs 7 mm. long. The general colour is brown, the first legs a little darker and the palpi lighter than the rest. The cephalothorax has the light middle stripe much darkened with brown in the front half. The abdomen has the usual markings in pairs, the hinder pairs united into transverse stripes. (Pl. 7, Figs. 1, a.) The first and

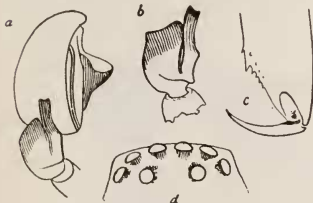


Fig. 14

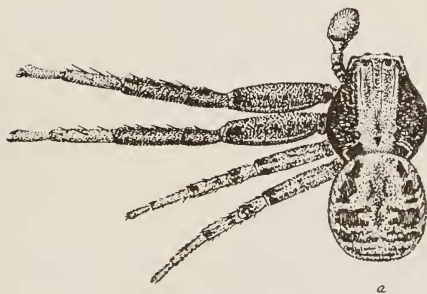


Fig. 15

second legs have the femur, patella and tibia darkly spotted with brown, and the tarsus and metatarsus a little lighter. The male palpus has the two processes of the palpal organ both small, the basal one simple and the distal one narrow at the base and thickened at the end where it curves toward the other. In front of the two processes is a wide, dark brown ridge. (Fig. 15, b.)

Saskatoon, T. N. Willing.

Xysticus ontariensis, n. sp.

Male 4 mm. long. First and second legs 9 mm. Cephalothorax dark brown, showing a middle stripe very indistinctly. The first and second legs have the femur and patella dark brown, and the rest of the leg pale. The third and fourth legs are spotted as usual but not very strongly marked. The abdomen has

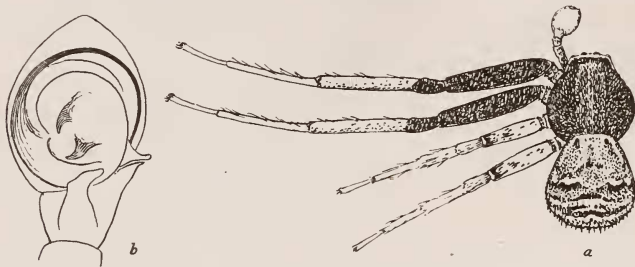


Fig. 16

two irregular brown patches on the front half, and three or four transverse stripes behind all with irregular outlines and variable colour. (Fig. 16, a.) The male palpus has the tibia white. The palpal organ has the two processes on the under side, simple hooks turned toward each other as in *X. gulosus*, with which this species has been confused. (Fig. 16, b.)

Cloyne, Ontario, A. B. Klugh; Wellesley, Massachusetts.

NOTES ON COCCIDÆ—III. (HEMIPTERA).*

BY G. F. FERRIS, STANFORD UNIVERSITY, CALIFORNIA.

Continued from Can. Ent., vol. 50, p. 332.

Genus **Stigmacoccus** Hempel.

1903. Fernald, Cat. Coccidæ, p. 20.

Monophlebid Coccidæ in which the adult female possesses mouth-parts, legs and antennæ, the latter 7-8-segmented; immature stages without legs and with the antennæ reduced to mere chitinized points, with an anal tube formed by the chitinization of the posterior portion of the alimentary canal, this tube terminating at its inner extremity in a series of tentacle-like processes. Abdomen in adult and penultimate stages with 8 pairs of spiracles.

Type of the genus, *Stigmacoccus asper* Hempel.

Notes.—The original description of the type species was based upon the adult alone and the immature stages have not been described. In general the genus appears to be quite similar to *Xylococcus*, but the very peculiar character of the anal tube alone seems sufficient grounds for its separation.

Whether the genus *Perissopneumon* Newstead is a synonym of *Stigmacoccus*, as Cockerell has indicated, is perhaps doubtful.

Stigmacoccus asper Hempel.

Fig. 17.

Penultimate stage. Enclosed in a test, as described by Hempel for the adult female. Body more or less spherical, with the anal opening high up on the dorsum. Derm membranous throughout, except for a small, circular,